Using Wikis in EFL Collaborative Writing

Abstract
This paper presents the use of wikis for collaborative writing by third-year students at Naresuan University. The study aimed to (1) explore students’ perceptions on collaborative writing, (2) investigate students’ editing on contents and forms, and (3) reveal how editing usage effected students’ writing performances. The participants of the study were 20 third-year students majoring in Computer Science who enrolled Writing Academic English in the second semester of the academic year 2009. The data gathered from a self-assessment questionnaire, wiki logs, and a writing test were analyzed to serve the research purposes. The findings showed that (1) the students had positive perceptions on working collaboratively on wikis, (2) the students edited on contents more than on forms, and (3) the students who edited at high level performed better than those who edited at medium and low levels at the statistically significant level at .05.

Key words: collaborative writing, wiki, EFL writing

บทคัดย่อ
บทความนี้นำเสนอผลการใช้วิธีการเขียนแบบร่วมมือของนิสิตชั้นปีที่ 3 มหาวิทยาลัยนครศรีธรรมค์ ในการศึกษาระบบการแก้ไขข้อผูกพันเพื่อ (1) สอบถามความรู้สึกของนิสิตที่ทำงานเขียนแบบร่วมมือ (2) ศึกษาลักษณะการแก้ไขงานของนิสิตทั้งในระดับเนื้อหาและระดับรูปแบบ และ (3) ศึกษาผลของการแก้ไขงานที่ผูกพันเพื่อศึกษาความสามารถในการเขียนของนิสิต กลุ่มตัวอย่างคือนิสิตมหาวิทยาลัยนรศรีธรรมค์จำนวน 20 คนที่เรียนวิชาภาษาอังกฤษเชิงวิชาการในภาคการศึกษาที่ 2 ปีการศึกษา 2552 เครื่องมือที่ใช้ในการเก็บข้อมูลประกอบด้วยแบบสอบถามประเมินตนเองรายงานการใช้วิธี และแบบทดสอบทางการเขียนผลการวิจัยแสดงให้เห็นว่า (1) นิสิตมีความรู้สึกที่ดีต่อการเขียนแบบร่วมมือโดยใช้วิธี (2) นิสิตมีการแก้ไขงานเขียนของกลุ่มผู้ที่ไม่ใช้วิธีนี้ในระดับเนื้อหาและระดับรูปแบบ และ (3) นิสิตที่มีการแก้ไขงานระดับสูงมีความสามารถทางการเขียนสูงกว่านิสิตที่มีระดับการแก้ไขงานในระดับปานกลางและระดับต่ำอย่างมีนัยสำคัญทางสถิติที่ระดับ .05
คำสำคัญ: การเขียนแบบร่วมมือ, วิธี, การเขียนภาษาอังกฤษในฐานะภาษาต่างประเทศ
Introduction

According to Larsen-Freeman (2000), collaborative learning basically involves students learning from each other in groups. When learning is centered on collaboration, individuals seek outcomes beneficial to themselves and all other group members (Johnson et al., 1994; Larsen-Freeman, 2000). This is similar to writing development: process approach (Thornbury, 2006). In order to promote collaborative learning, new technologies have been used and they had a tremendous impact on the teaching and learning of writing in the last few decades (Goldberg et al., 2003; Hyland, 2003). One of promising technology is a wiki.

The concept and characteristics of wikis are explained by various educators and researchers. A wiki can be defined as a “collaborative web space where anyone can add content and anyone can edit content that has already been published” (Richardson, 2006, p. 8). Franklin and Van Harmelen (2007) define a wiki as “a system that allows one or more people to build up a corpus of knowledge in a set of interlinked web pages, using a process of creating and editing pages” (p.5). Lin et al. (2007) explain that the wiki is “a type of website that everyone can edit, add and revise context using a normal web-browser” (p. 343). Likewise, Eberbach et al. (2006) define wikis as a “Web-based software” allowing people who see wiki pages to change the content by editing it online.

The concept of wiki benefits collaborative learning, and collaboration has often been defined as the “heart and soul” (p. 6) of an online course (Palloff & Pratt, 2005). Collaboration takes planning and coordination on the part of instructor to carry out collaborative activity successfully in an online class. Instructors do not manipulate the process of students’ collaboration but involve in order to assure that students will engage with one another in a meaningful way. Moreover, wiki’s tracking system provides teachers with information on how students collaborate within their group, which is difficult to assess in a traditional classroom environment (Woo et al, 2009).

There are several advantages of using wikis including promoting collaborative writing (Engstrom & Jewett, 2005; Keith, 2006; Lamb & Johnson, 2007), providing open-editing (Lamb, 2004; Farabaugh, 2007), allowing non-linear text structure (Ebersbach et al., 2006; Farabaugh, 2007; Keith, 2006), encouraging multiple modalities (Jewitt, 2005; Kress, 2003), and providing a simple editing environment (Chang, 2004; Raiman et al., 2005).

According to Ramanau and Geng (2009), there are several types of wikis depending on their usage, ownership and architecture; it is believed to have large potential for fostering collaborative group work and creating learning resources. In particular, it can be used for collaborative writing and can support various content-based and form-based language learning activities like composition writing, the creation of reports, presentations and graphical pages with links to external sources.

According to Mak and Coniam (2008), there are three approaches to the development of writing in ESL: a focus on form, a focus on the writer, and a focus on the reader. With a focus on form, writers base their writing against ‘models’ provided by their teachers. With the second approach, the construction of a piece of writing goes through cycles of writing and re-writing activities. Lastly, writing is viewed as a social activity where texts are produced for a particular purpose or audience. However, no single theory can be seen to be mutually exclusive, with all developments building on previous research. Grabe and Kaplan (1996) understand this and propose a descriptive model of communicative language processing as a means of integrating the cognitive, social and textual domains of a theory of writing.
This study intends to investigate the effects of using wikis in collaborative writing in the latter two traditions described above. The use of wikis in this project situates itself within a process-writing approach, with the effect that feedback and student revisions add to the writing process for a social purpose.

Research Questions
In order to explore the use of wikis in EFL collaborative writing, it sought to address three research questions:
1. How did the students perceive group collaboration through wikis?
2. What kind of editing did the students make on wikis?
3. Did the wiki usage influence the student learning outcomes?

Related Literature and Research
The wiki for language learning: collaborative writing in particular
Information technology has had a major impact on classroom design in recent years. Information technology facilitates the popularity of online learning, which eliminates the limitations of time and distance (Chen, 2008). However, the effectiveness of learning online is controversial. Some studies report both positive and negative responses from students toward internet enhanced learning (Steele et al., 2002). To improve performance, research has suggested that providing an environment or interactive materials that could engage students to motivate their learning (Upton, 2006). One of the effective, efficient tools widely used is a wiki.

The wiki has introduced a new way of interacting on the Web and has made it possible to create and share information and knowledge in a more authentic way than before (Lee and Bonk, 2009). Lin et al. (2007) explain that “students through the wiki are able to post information that they want to share and easily interact with each other” (p. 343). Similarly, Lin et al. (2008) describe that in collaboration with other persons, the wiki is an online place wherein one can write information and exchange knowledge with others. The wiki has three general activities: (1) writing, (2) reading, and (3) editing (or updating).

Lee and Bonk (2009) summarize the strengths and the weaknesses of wikis that are generally pointed out in the literature as in Table 1.
Strengths and weaknesses of wikis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing one good quality document</td>
<td>Weak in visual editing</td>
</tr>
<tr>
<td>Maintaining newer knowledge and information</td>
<td>Difficult to embody some special texts that have complicated formats</td>
</tr>
<tr>
<td>Allowing collaborative writing without an on-site meeting</td>
<td>Difficulty lending 100% confidence regarding the content students have written</td>
</tr>
<tr>
<td>Allowing participants to observe peers’ development</td>
<td></td>
</tr>
<tr>
<td>Approaching working areas quickly and easily</td>
<td></td>
</tr>
<tr>
<td>Following up on the contents students built</td>
<td></td>
</tr>
<tr>
<td>Recovering former and deleted versions</td>
<td></td>
</tr>
<tr>
<td>Recording documents’ information according to flow of time</td>
<td></td>
</tr>
<tr>
<td>Noticing the revision of the document by email</td>
<td></td>
</tr>
</tbody>
</table>

Research on wikis has been currently done from various perspectives in order to explore areas of proper application as well as the ability to utilize its functions (Chen, 2008; Coutinho & Bottentuit, 2007; Lamb, 2004; Langie et al., 2006; Lin et al., 2007; Mak & Conaim, 2008; Miyazo & Anderson, 2009; Parker & Chao, 2007; Pedro et al., 2006; Wang et al., n.d.; Woo et al., 2009). Most of them found high value and effective of applying wikis for learning. However, some weaknesses as shown in Table 1 might influence students’ learning.

Collaborative Writing

Research (Donato, 1994; Swain & Lapkin, 1998; Aljaafreh & Lantolf, 1994) has suggested that collaborative language activities provide occasions for language learning to take place. Zamel (1982) considers writing to be an activity of finding out meaning including creating, organizing, and clarifying of students’ ideas. According to Mak and Conaim (2008), three approaches to the development of writing in ESL are often identified in the literature. The first involves a focus on form – where emerging writers base their writing against ‘models’ provided by their teachers. The second takes the perspective of a focus on the writer – where the construction of a piece of writing goes through cycles of writing and re-writing activities – the concept of process writing. The third focuses on the reader writing is viewed as a social activity where texts are produced for a particular purpose or audience. Horowitz (1986) proposes several recommendations for enhancing the process rather than just the
products or outcomes of English composition, namely: (1) preparation of various drafts, (2) work in a group, (3) writing themes according to individual interest, and (4) peer assessment. Literature on collaborative learning in second language (L2) acquisition strongly supports the importance of social interaction and collaboration in L2 learning (Saville-Troike, 2006) and writing (Hyland, 2003). Generally, the literature seems to point to web-based collaborative learning as potentially promising technology in L2 learning as well as L2 writing (Goodwin-Jones, 2003).

Method

Participants
A class of 20 third-year students majoring in Computer Science was selected for this study to ensure that they had computer skills to work on wikis. This study was conducted in Writing Academic English in the second semester of the academic year 2009.

Program
The open-source Moodle was chosen as the forum platform for its ease of use and its free services. Moodle has built-in wiki tools. Like free wikis, Moodle wiki tools are relatively easy to add to the online course and typically offer basic editing and formatting features. It offers single-page constructions and is automatically private to the groups of students who have access to the created course. The students were allowed short practice sessions in class prior to the assignments whenever a new online tool was introduced. Given that the students in this study were at the developmental stage in their target language acquisition process, the class website was only accessible to members of the class. Wiki activities were viewable by everyone in the class; however, the students were allowed to restrict access to their wiki pages if they so wished.

Instruments
In the current study, three different research instruments were used to collect data. The first instrument was a questionnaire designed by Paloff and Pratt (2005) which is called “Collaboration Questionnaire on Assessment”. It was a five point Likert scale developed to investigate students’ perception on their participation in the activity and their contributions to the group. The second was wiki logs containing editing information generated by different groups. The final instrument was a timed writing-test containing two paragraph-writing tasks. The interrater reliability for the timed writing-test was acceptably high ($\alpha = 0.88$).

Research procedure
The study lasted eight weeks—from early November to the end of December 2009. It is described here in three Stages as follows:

Stage One took place in the first week. There was some preparation and introduction to the study and to wikis. In this stage, students were briefed about wikis: what they were and how they were going to be used in the e-learning. The students were grouped by four into five working groups. Each group consisted of four students from three different level of English competency—high, medium, and low. Students’ GPA of previous English courses was used to indicate students’ English competency. The students were assigned into levels by using a norm-referenced approach. With a norm-referenced approach, five students were at
a low English competency level whereas ten students were at a medium English competency level, and other five students were at a high English competency level. Each writing group consisted of one from low, two from medium, and one from high English competency level—with a total of four. Each group was informed to set their own working system; that is, the groups set the member roles, the timeline for group writing, and some other agreements among group members.

Stage Two, which lasted six weeks, was the actual wiki project. The students could log in to post their ideas and/or revise their group writing at their own time outside the classroom.

Stage Three consisted of printing and submitting the final writing product to the instructor. After finishing their writing project, the students were asked to complete a “Collaboration Questionnaire on Assessment”. After that, the students took the timed writing-test. The students had two hours to finish their test. Two raters, then, evaluate the students’ test with the analytic scoring. The raters read each paper and evaluated the various components of a piece of writing separately. The scoring rubric for each writing task was as follows:

- Topic sentence 10%
- Sentence structures 20%
- Use of transitions 10%
- Grammar 20%
- Vocabulary 10%
- Conclusion 10%

The total score of the timed writing-test was 30 points as it was a part of the class evaluation. After that, the wiki logs were then printed out for further analysis.

Data Analyses

The data from the questionnaire were analyzed for the mean ( and the standard deviation (SD) to reveal the students’ perceptions on working collaboratively. In order to investigate kinds of students’ editing, editing information generated by different groups were collected automatically online through the wiki system were analyzed and sorted by type of revision or contribution. The types of revision were categorized using an adapted version of Mak and Coniam’s (2008) four identifiers. The four identifiers from their study were: (1) adding ideas—where new content is contributed, (2) expanding ideas—where existing ideas are built on or reworked in some way, (3) reorganizing ideas—where editing and organizing takes place such as text being moved around, a topic sentence added etc., and (4) correcting errors—where amendments are made to grammar, spelling and punctuation, but no new content is contributed. The categorized data were analyzed for the frequency (F).

To answer the last research question, the students’ test scores from the writing test given in the last week of the study were used as students’ learning outcomes. The frequency of students’ editing was used to categorize students’ into three groups (high-, medium-, and low-usage students). However, since the design of this study lacks random grouping, the scenario of possible pre-existing differences between the three usage groups could undermine the validity of the analysis. A two-way analysis of covariance (ANCOVA) was employed to address the issue and detect the influences of editing usage on students test scores with the students’ GPA of previous English courses as the covariate. The students’ GPA of previous English courses was a mean of students’ grades from two previous courses including Fundamental English and Developmental English. These two courses were required before enrolling Writing Academic English.
Findings and Discussions

1. How did the students perceive group collaboration through wikis?

Table 2 shows that the students’ perceptions on collaboration through wikis were positive. They established common goals for their group work; this was crucial for collaboration and students’ learning. Paloff and Pratt (2005) mentioned that “if students are clear about the nature of the activity and how they are to complete it, they are much more likely to pick up the gauntlet and move forward with minimal instructor intervention” (p. 20). Besides, in learning environments, peering is evident when teams self-organize around the learning goal or outcome (West & West, 2009). Apart from establishing goals, the students seemed to work collaboratively in effective ways since they reflected that they chose a leader, assigned roles, communicated well, contributed equally to both the process and the final product. Such findings reflect effectiveness of group work. Paloff and Pratt (2005) noted that participation in team-working can be challenged because differences in expectations or in willingness to collaborate may also interfere, or, conversely, overly high expectations for participation on the part of team members may cause problems.

In addition, the students were satisfied with working together and with their writing outcome as well as their individual learning experience. The finding supported the idea that the wiki empowers users with a sense of ownership and authority, which promote students’ responsibility to their learning (Bold, 2006; Raitman, et al., 2005). Likewise, the students seemed to find the use of the new technology beneficial to their learning, particularly due to the possibilities of learning grammar with their peers and opportunities to be involved in collaborative work. According to West and West (2009), the ability to communicate with other members within the wiki can be instrumental to the success of an online wiki project.

**Table 2: Self-assessment on collaboration**

<table>
<thead>
<tr>
<th>Collaboration Factors</th>
<th>SD</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>We established common goals.</td>
<td>4.56</td>
<td>.512 Strongly agree</td>
</tr>
<tr>
<td>We communicated well as a team.</td>
<td>3.94</td>
<td>.680 Somewhat agree</td>
</tr>
<tr>
<td>We chose a leader without difficulty.</td>
<td>4.13</td>
<td>.342 Somewhat agree</td>
</tr>
<tr>
<td>We assigned roles without difficulty.</td>
<td>4.19</td>
<td>.750 Somewhat agree</td>
</tr>
<tr>
<td>Everyone contributed equally to the process.</td>
<td>3.88</td>
<td>.806 Somewhat agree</td>
</tr>
<tr>
<td>Everyone contributed equally to the final product.</td>
<td>3.69</td>
<td>.479 Somewhat agree</td>
</tr>
<tr>
<td>We had adequate time and resources to complete our task.</td>
<td>3.94</td>
<td>.574 Somewhat agree</td>
</tr>
<tr>
<td>I was satisfied with the way we worked together.</td>
<td>4.38</td>
<td>.500 Somewhat agree</td>
</tr>
<tr>
<td>I was satisfied with the final outcome.</td>
<td>4.25</td>
<td>.578 Somewhat agree</td>
</tr>
<tr>
<td>I feel that I learned from this activity.</td>
<td>4.50</td>
<td>.516 Strongly agree</td>
</tr>
</tbody>
</table>
2. What kind of editing did the students make on wikis?

Wiki’s tracking system provided information that helped understand in depth what kind of editing was taking place. Table 3 shows the types of editing done by eight different groups as recorded in wiki’s tracking system, categorized according to Mak and Coniam’s (2008) adapted version of identifiers. It shows the number of activities recorded in the tracking system varying from 61-76 for the number of edits posted by each group.

A detailed analysis of the edits shows that most concern content, such as the adding, reorganizing, replacing; and elaborating of ideas (with the total frequency of 176 edits), rather than form, such as grammar; spelling; punctuation; and formatting (with the total frequency of 149 edits). The finding supported the findings of Woo et al.’s study (2009), in which primary five students’ collaborative writing with a wiki was explored. One reason might be that the students tended to feel at ease communicating through their familiar domain of technology since the subjects of the study were majoring in computer science. Moreover, their content editing could be done in their native language (Thai), so they might feel comfortable to add new ideas, elaborate, reorganize, and replace existing ideas. This is a good sign in encouraging good writing skills, especially in L2 writing, where many students tend to focus on form rather than content (Hyland, 2003). However, in terms of editing forms, it is obvious that the students were concerned more on grammatical errors.

In order to consider the process of group writing, a further tracking on the wiki logs was done, and it revealed that the student mostly edited their contents in the first four weeks and focused more on forms in the last two weeks. This reflects good planning and working. The students’ contributions on group work might be taken place because of wiki’s ease of use. Lamb (2004) and Farabaugh (2007) claim that wikis provide an easy way for completing collaborative projects, extending group work by continuing it asynchronously outside the course, and encourage learners to participate discussions on their own in the online environment (Ramanau & Geng, 2009).

Table 3: Types of Editing by Groups

<table>
<thead>
<tr>
<th>Editing</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Edits:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Adding new ideas</td>
<td>15</td>
<td>14</td>
<td>12</td>
<td>21</td>
<td>18</td>
<td>80</td>
</tr>
<tr>
<td>- Elaborating on existing ideas</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>12</td>
<td>44</td>
</tr>
<tr>
<td>- Reorganizing existing ideas</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>- Replacing existing ideas</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>27</td>
<td>34</td>
<td>30</td>
<td>47</td>
<td>38</td>
<td>176</td>
</tr>
<tr>
<td><strong>Form Edits:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Grammar</td>
<td>18</td>
<td>11</td>
<td>14</td>
<td>14</td>
<td>10</td>
<td>67</td>
</tr>
<tr>
<td>- Spelling</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>- Punctuation</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>- Formatting</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>38</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>35</td>
<td>27</td>
<td>35</td>
<td>29</td>
<td>23</td>
<td>149</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>62</td>
<td>61</td>
<td>65</td>
<td>76</td>
<td>61</td>
<td>325</td>
</tr>
</tbody>
</table>
3. Did the wiki usage influence the student learning outcomes?

We now focus on the data related to editing usage and learning outcome in order to investigate the relation between users editing usage and their test scores. The students were categorized into three usage levels: high, medium and low. By considering the average frequency of editing usage (M=16.25) and the balance of the number of subjects assigned to each group for reliable statistical testing, students with a usage score greater than 18.86 were assigned to the high usage group (number of subjects=7), while those with a usage score between 12.93-18.86 and less than 12.93 were placed in the medium usage group (number of subjects=7) and the low usage group (number of subjects=6) respectively.

Table 4 presents the results of the test scores of students in different editing usage group. It was found that high-usage students obtained highest scores (with the mean of 23.86) followed by the medium-usage students (with the mean of 18.00) and the low-usage students (with the mean of 14.17) respectively.

The finding supports the study conducted by Langie et al. (2008) in which wikis were found encourage cooperative and dynamic context within groups based on the outcomes of the first year of the project.

Table 4: Test Scores of Students

<table>
<thead>
<tr>
<th>Group</th>
<th>( \bar{X} )</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>High usage</td>
<td>23.86</td>
<td>2.61</td>
</tr>
<tr>
<td>Medium usage</td>
<td>18.00</td>
<td>6.95</td>
</tr>
<tr>
<td>Low usage</td>
<td>14.17</td>
<td>3.13</td>
</tr>
</tbody>
</table>

In order to explore the effects of editing usage towards test scores, the ANCOVA was calculated. However, before conducting ANCOVA, several assumptions of ANCOVA were tested, including the assumptions of normality, homogeneity of variance, and homogeneity of within-group regression. All the assumptions were confirmed, so the application of ANCOVA in this case was justified. Table 5 presents the results of the two-way ANCOVA. The results of the F-test support the effect of the editing usage on the students’ test scores after controlling for the students’ GPA of previous courses, \( F(2,16) = 4.500, p < 0.05 \). It was found that there were statistical differences in the test scores of students with different editing usage. Therefore, further pair-wise comparisons were conducted.

Table 5: ANCOVA Analysis of Test Scores of Students

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p-value</th>
<th>Partial Eta square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editing usage and GPA</td>
<td>2</td>
<td>69.675</td>
<td>4.500</td>
<td>0.028*</td>
<td>.360</td>
</tr>
<tr>
<td>GPA</td>
<td>1</td>
<td>131.968</td>
<td>8.524</td>
<td>0.010*</td>
<td>.348</td>
</tr>
<tr>
<td>Source of between groups</td>
<td>1</td>
<td>94.901</td>
<td>6.130</td>
<td>0.025*</td>
<td>.277</td>
</tr>
<tr>
<td>Error</td>
<td>16</td>
<td>15.483</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* \( p<.05 \)
With a pair-wise comparison, as shown in Table 6, it was found that the students with high usage of wikis demonstrated higher test scores, comparing to the students with low usage (mean difference = 6.913) and the test scores of the students with medium usage were higher than those of the students with low usage (mean difference = 2.295) at the statistically significant level of .05. However, there was no difference between the students with high usage and those with medium usage. Clearly, the students with more usage performed better than those with less usage. However, this did not follow the previous study by Wang et al. (n.d.), in which students with low usage performed better than those with high usage in the final exam. In Chen (2008), the wiki had the effects on students’ language learning, but only reading and listening skills were investigated; that is, there existed statistically significant difference between the group with and without wikis, which means the group applying wikis performed better in listening and reading abilities.

Table 6: A Pair-Wise Comparison of Test Scores of Students with Different Editing Usage Groups

<table>
<thead>
<tr>
<th>Editing Usage Group</th>
<th>Mean Difference (I-J)</th>
<th>Standard Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Medium</td>
<td>4.618</td>
<td>2.146</td>
<td>.047*</td>
</tr>
<tr>
<td>High-Low</td>
<td>6.913</td>
<td>2.387</td>
<td>.011*</td>
</tr>
<tr>
<td>Medium-Low</td>
<td>2.295</td>
<td>2.252</td>
<td>.323</td>
</tr>
</tbody>
</table>

*p<.05

Conclusion

Since the wiki actively involve learners in their own construction of knowledge (Boulos et al., 2006), it has the potential to complement, enhance, and add new collaborative dimensions to the classroom. Wikis can serve as a knowledge platform for a community of practice where members of the community can share their knowledge with the group, put up interesting pieces of information, work together, discuss issues, etc. (Schaffert et al., 2006). Within such environment, learning becomes a collaborative process of a group. Indeed, collaborative learning becomes even more powerful when it takes place in the context of a community of practice.

The current study demonstrated how wikis influenced EFL collaborative writing as well as students’ perceptions and practices. The findings lead to more comprehensible ideas of using wikis in collaborative writing. However, it must be noted that L1 might be necessary when students need to communicate or discuss to avoid ambiguity. Storch (2005), who has conducted extensive research into collaborative writing, reports that research done in L1 settings found that collaborative writing is a way to foster reflective thinking, especially if the learners have to explain and defend their ideas to their peers.

The first finding showed that the students had positive perceptions on working collaboratively on wikis. It also illustrated a good process of students’ collaboration from setting goals to final products. Likewise, the second finding reflected the students’ efforts on writing project. Numbers of editing—both on content and on form—revealed that the students spent enough time and contributed to their group writing continuously. It was also a good
sign to see that the students edited more on contents than forms. When asking about how collaboration influenced individual performance, the third finding showed us that the students who edited more performed better. In short, collaborative writing through wikis had positive effects on students’ perceptions, practices, and performances.

For further research, a larger group of samples can support what previous and current research has found. However, any researchers and/or teachers who would like to use wikis as a research/teaching tool must be aware of some challenges like teachers’ role in collaborative environment, technological problems, and so on. They need to choose appropriate type of wikis and ensure that they are familiar with such a tool. Moreover, teachers’ roles can also influence students’ perceptions, practices, and performances. Learning management does not limit only to software but means every single element of learning environment.
References


